Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of	)	
	)	
Facilitating the Provision of Spectrum-Based	)	WT Docket No. 02-381
Services to Rural Areas and Promoting	)	
Opportunities for Rural Telephone Companies	)	
To Provide Spectrum-Based Services	)	

To: The Commission

COMMENTS OF NTCH, INC.

NTCH, Inc., (A NTCH@), by its attorneys, hereby offers comments in the above-captioned proceeding directed at a specific aspect of spectrum use in rural areas where the Commission could, by simple regulatory action, significantly expand the quality of service to rural areas. In the Notice of Proposed Rulemaking released October 6, 2003, the Commission opened an exploration into a number of avenues that could possibly expand the availability of wireless services in rural America. NTCH provides PCS service in mostly smaller rural markets in the west and south central parts of the United States. It is only too familiar with the serious obstacles that a carrier must deal with every day in successfully constructing, financing, and operating a rural CMRS system. NTCH therefore applauds the Commission=s initiatives in the rural area and offers the following thoughts on the Commission=s proposal for infrastructure sharing.

At Paragraphs 100 - 108 of the NPRM, the Commission touched on the use of infrastructure sharing in Europe as a means recognized there as permitting faster rollout of service and greater geographic coverage. The Commission also noted with approval

arrangements which have been announced to date among competing U.S. carriers to share Apassive@ network elements (such as tower sites) so as to permit broader geographic coverage at lower cost. The Commission had less experience with sharing of Aactive@ network elements such as transmission facilities since these do not seem to have been the subject of agreements to date. Comment on whether such arrangements promote rural service were solicited.

In NTCH=s view, infrastructure sharing, including frequency sharing, in rural communities can have enormous potential benefits for the communities affected. The Commission correctly recognized that in many rural markets the size of the population is not great enough to sustain the multiplicity of carriers which are the norm in major markets. It is a simple economic fact that a threshold number of subscribers is necessary to sustain the infrastructure for any given system. A market can only support the number of carriers which is justified by the number of available subscribers. Accordingly, no matter how many carriers are theoretically authorized or how many enter the market, the laws of economics will inevitably drive the number of surviving carriers down to a factor of the number of potential subscribers. The Commission must recognize, therefore, that a community of 50,000 people (representing a maximum of perhaps 10,000 potential subscribers) will not be able to sustain 6, 4 or even 3 competing independent CMRS systems. Indeed, it may be hard pressed to support more than one. This economic reality confronts every CMRS carrier who contemplates service to a highly rural market.

Under these circumstances, infrastructure sharing provides a number of important benefits. Every element of infrastructure which can be shared eliminates a capital cost and reduces an expense cost which could make the difference between a viable service and a failed

one. One obviously critical piece of passive infrastructure is towers. By sharing towers and other structures, both the cost and the time delay in getting a transmission system operational can be significantly reduced. The Commission seems already to have blessed such arrangements between carriers. Sharing is, of course, required in national park areas where the government authorities normally require sharing to minimize effects on the environment, but these benefits are also realized outside the national park or forest context.

The area where regulatory relief is most necessary, however, is in the area of frequency sharing. NTCH is aware of rural market areas where there are multiple carriers, each of whom has built a relatively small infrastructure which can serve a limited number of customers. The coverage areas of each carrier are necessarily limited and overlap only to a small extent. The infrastructure built out by each is the maximum that the number of available subscribers would justify, so there is no economic possibility that the three of them would build out three times more cell sites to widen their coverage. The result is that customers have three competing carriers with three minimal coverage areas and no effective way to ever expand it given the small customer base. Because of the small number of subscribers, none of the carriers is limited by frequency constraints since there is plenty to go around.

Ideally, the carriers could take three steps to improve the situation: (1) share their transmitter sites so that all of them could provide wide area coverage at considerably less cost than if they all had to build out separate facilities; (2) contribute toward a single shared GSM network and a single shared CDMA network which all three carriers could use. This would significantly reduce the up-front and ongoing capital costs necessary to provide high quality service and would therefore make possible the entry of more competing carriers; and (3) use

frequency blocks contributed by the carriers as needed for efficiency=s sake rather than as mandated by FCC rules.

In big picture terms, this arrangement would permit three carriers (and perhaps more) to provide service in a market which could normally only sustain one or two. It would permit all participating carriers to lower their cost of providing service so that the charges to consumers could also be reduced commensurately. Finally, it would permit both a much broader geographic coverage and a higher quality of service to be provided to customers of all the carriers. At the same time, there would still be three independent carriers who would continue to compete with each other on price, customer service, equipment bundles, auxiliary features, etc. In every sense, the rural consumer would end up with a better, cheaper and more far-ranging CMRS service than would be economically possible otherwise. The consumer would lose the theoretical benefit of competition on coverage area, but as we have noted, that possibility in a rural area is, in a practical sense, wholly illusory due to the inability of a typical rural demographic to sustain three independent, large coverage areas B or even one independent, large coverage area.

As we understand the present regulatory posture, sharing of towers would clearly be permissible now without further regulatory relief. Sharing of switching and network facilities is more problematic because this network element is more active, although there have been many cases of carriers making available excess switching capacity to competitors on an arms length basis. The Commission should confirm that such arrangements are permissible. Sharing of frequencies and transmission facilities is now probably permitted under the principles adopted in

the Secondary Markets proceeding[1] subject to the policies adopted there. Under the secondary markets concept, the participating carriers could either contribute spectrum to a single carrier to manage or form a consortium entity to provide what would effectively be a wholesale service which the individual carriers would then retail on their own terms.

The main difficulty is that under present Commission rules, each participating carrier would have to be sure that some portion of its own licensed frequencies were included in the frequencies used by the group. Otherwise it would not be able to certify that it had constructed and was using the particular spectrum on its license and would be at risk of having the license cancelled if the spectrum was not used within five years of grant. This regulatory fact creates a wholly artificial need for disparate spectrum blocks to be activated throughout the joint service area to ensure that all of the carriers have met their individual five year build-out obligations. The same considerations apply to evaluation of whether the individual spectrum bands have been put to Asubstantial service@ during the license terms so as to merit renewal at the end of the license term.

The most efficient and practical regulatory approach would be to permit the carriers to use the available spectrum in the blocks that are most conducive to interference protection and spectrum conservation, retaining the remainder of the spectrum as a reserve for use as the system needs more capacity. Participants in the plan should be deemed to be using their own spectrum for purposes of the five-year build-out and Asubstantial service@ rules regardless of whether

[1] *Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, WT Docket 00-230, released October 6, 2003.

their particular bit of spectrum was actually being used by the consortium or not.

This concept is not a novel one to the Commission. In Docket 03-66, the Commission is considering with favor precisely such an approach for ITFS and MDS carriers who pool their frequencies to form a sufficiently large spectrum block to permit cellular broadband service and mobile TDD and FDD services. Because the spectrum in such an arrangement is used by the participants as part of a unified whole, the Commission must effectively treat participation in such a plan as constituting Ause@ of the spectrum licensed to each individually licensed participant regardless of whether that licensee=s particular spectrum is being actively used, used as a passive guardband, or held in reserve for future system growth. This is essentially the same regulatory treatment that NTCH believes would be beneficial in rural areas where spectrum sharing could occur under the circumstances outlined above. Absent such a rule, much of the benefit of the shared system is lost because there would have to be wasteful and economically unnecessary build-outs and use of frequency blocks which are being activated solely to meet FCC requirements but not for any Areal world@ reason.

Accordingly, the Commission should provide as part of its build-out rules for rural CMRS providers (and for other rural wireless providers as well, for that matter) that participation in a joint consortium for the provision of service where spectrum is being used cooperatively counts toward the participants= build-out and substantial service obligations. Specifically, in markets below the top 75, carriers with existing independent networks could join together in a single network and operate that network on the spectrum licensed to any one or more of them, and their use of this spectrum would be treated for all participants as if they operated on their own allocations to the extent of the footprint operated by the shared network. This provision

would only apply if the shared network served a larger area than the largest area served by any individual participant prior to the sharing.

This formulation obviously ensures that the public is actually benefiting by the joint arrangement among existing carriers, but it also would require multiple build-outs and capital outlays for switches, etc, which would then be rendered needless if a joint arrangement were then adopted. Alternatively, therefore, the Commission could permit these kind of shared arrangements without the necessity for individual build-outs, provided that each carrier maintain its own separate and independent sales effort in the market where the joint arrangement is underway.

The measure outlined above will greatly facilitate the provision of improved and expanded CMRS coverage in rural markets at lower prices and with higher quality facilities than would otherwise be possible. The measure also preserves competition between carriers in all other aspects of customer offerings so as to ensure that customers get the lowest possible prices. This would truly be a win all around for rural America, and the Commission should therefore revise its rules to permit the type of infrastructure sharing proposed above.

Respectfully submitted,

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By_____/s/_____
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